

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A recombinant herpes simplex virus incapable of expressing an active $\gamma_134.5$ gene product and comprising an expressible IL4-encoding ~~GM-CSF-encoding~~ DNA.

2. (Previously presented) The recombinant herpes simplex virus of claim 1 wherein said virus lacks all or part of said $\gamma_134.5$ genes.

3. (Canceled)

4. (Previously presented) The recombinant herpes simplex virus of claim 1 wherein said virus comprises $\gamma_134.5$ genes having a deletion of a portion of a coding sequence of said $\gamma_134.5$ genes, said deletion comprising a Bst EII-StuI fragment of said $\gamma_134.5$ genes.

5. (Previously presented) The recombinant herpes simplex virus of claim 1 wherein said virus comprises $\gamma_134.5$ genes having a stop codon at a Bst EII site in said $\gamma_134.5$ genes.

6. (Canceled)

7. (Currently amended) The recombinant herpes simplex virus of claim 1 wherein said expressible IL4-encoding ~~GM-CSF-encoding~~ DNA is under the promoter-regulatory control of a herpes simplex virus gene promoter.

8. (Original) The recombinant herpes simplex virus of claim 7 wherein said herpes simplex virus gene promoter is an EGR-1 promoter.

9. (Currently amended) The recombinant herpes simplex virus of claim 1 wherein said IL4-encoding ~~GM-CSF-encoding~~ DNA is under the promoter-regulatory control of a synthetic herpes simplex virus-derived promoter.

10. (Original) The recombinant herpes simplex virus of claim 9 wherein said synthetic herpes simplex virus-derived promoter comprises a herpes simplex virus α gene promoter fragment operatively linked 5' to a herpes simplex virus γ gene promoter fragment.

11. (Original) The recombinant herpes simplex virus of claim 10 wherein said α gene promoter fragment comprises promoter sequences upstream of the transcription initiation site of the α 4 gene and said γ gene promoter fragment comprises a transcription initiation site and the 5' transcribed non-coding sequence of the γ_1 UL19 gene.

12. (Currently amended) The recombinant herpes simplex virus of claim 1 wherein said γ_1 34.5 genes are replaced by said expressible IL4-encoding GM-CSF-encoding DNA.

13. (Currently amended) The recombinant herpes simplex virus of claim 1 wherein said virus comprises two or more copies of said IL4-encoding GM-CSF-encoding DNA.

14. (Canceled)

15. (Currently amended) The recombinant herpes simplex virus type 1 of claim 1 were said IL4-encoding GM-CSF-encoding DNA has replaced said- γ_1 34.5 genes.

16. (Canceled)

17. (Currently amended) The recombinant virus of claim 1 wherein said IL4-encoding GM-CSF-encoding DNA further comprises a polyadenylation signal.

18. (Previously presented) The recombinant virus of claim 17 wherein said polyadenylation signal is a hepatitis B virus-derived polyadenylation signal.

19. (Currently amended) A method for treating neoplastic disease, the method comprising administering to a target tumor, a recombinant herpes simplex virus incapable of expressing an active γ_1 34.5 gene product and comprising an expressible IL4-encoding GM-CSF-encoding DNA, wherein the expressed IL4 GM-CSF augments tumor cell killing.

20. (Previously presented) The method of claim 19 wherein said recombinant herpes simplex virus lacks all or part of said γ_1 34.5 genes.

21. (Canceled)

22. (Previously presented) The method of claim 19 wherein said recombinant herpes simplex virus comprises $\gamma_134.5$ genes having a stop codon at a Bst EII site in said $\gamma_134.5$ genes.

23. (Canceled)

24. (Previously presented) The method of claim 19 wherein said recombinant herpes simplex virus comprises $\gamma_134.5$ genes lacking a portion of the coding sequence corresponding to a Bst EII/StuI restriction fragment of said $\gamma_134.5$ genes.

25. (Currently amended) The method of claim 19 wherein said expressible IL4-encoding ~~GM-CSF-encoding~~ DNA is under the promoter-regulatory control of a herpes simplex virus gene promoter.

26. (Previously presented) The method of claim 25 wherein said herpes simplex virus promoter is an EGR-1 promoter.

27. (Currently amended) The method of claim 19 wherein said IL4-encoding ~~GM-CSF-encoding~~ DNA is under the promoter regulatory control of a synthetic herpes simplex virus-derived promoter.

28. (Previously presented) The method of claim 27 wherein said synthetic herpes simplex virus-derived promoter comprises a herpes simplex virus α gene fragment operatively linked 5' to a herpes simplex virus γ gene promoter fragment.

29. (Previously presented) The method of claim 28 wherein said α gene promoter fragment comprises a promoter sequence upstream of the transcription initiation site of said α gene promoter fragment comprising the transcription initiation site and the 5' transcribed non-coding sequence of the γ_1U_L19 gene.

30. (Currently amended) The method of claim 20 wherein said $\gamma_134.5$ genes are replaced by said expressible IL4-encoding ~~GM-CSF-encoding~~ DNA.

31. (Currently amended) A pharmaceutical composition comprising in a pharmaceutically acceptable carrier, diluent, or adjuvant, a recombinant herpes simplex virus incapable of expressing an active $\gamma_134.5$ gene product, said virus comprising an expressible IL4-encoding GM-CSF-encoding DNA, wherein the expressed IL4 GM-CSF augments tumor cell killing.

32. (Canceled)

33. (Previously presented) The method of claim 19, wherein the target tumor is a tumor of the central nervous system.

34. (Currently amended) The recombinant virus of claim 1 wherein said IL4-encoding GM-CSF-encoding DNA is under the promoter regulatory control of an EGR-1 promoter.